

Appln. No.: TO BE ASSIGNED
Preliminary Amendment Dated May 19, 2005

C&P-145US

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) Equipment for mechanical machining, ~~especially for turning and drilling mechanical of workpieces (2), such as light alloy wheels and the like, characterized in that it comprises:~~ the equipment comprising:

[[-]] at least one turning unit ~~(3)~~ with a double chucks ~~(6, 7)~~ to support the workpieces being machined and a turning head ~~(8)~~ designed to work alternately in association with one or other of the ~~said double chucks (6, 7)~~,

[[-]] at least one first workpiece loading/unloading device ~~(11)~~ for moving the workpieces being machined to one or other of the ~~said double chucks (6, 7)~~ so that workpieces are loaded/unloaded from one of the double chucks at the same time as mechanical machining is being performed on the other of the double chucks,

[[-]] at least one drilling unit ~~(4)~~ operatively associated with the turning unit ~~(3)~~ and including at least one first drilling head ~~(21)~~ combined with at least one corresponding first workpiece-holding means ~~(19)~~,

[[-]] at least one second workpiece loading/unloading device ~~(23)~~ for moving workpieces being machined in the ~~said at least one drilling unit (4)~~,

[[-]] the ~~said first and second workpiece loading/unloading devices (11, 23)~~ being further incorporated into the ~~said equipment~~ to move the workpieces undergoing machining towards and away from one or other of the ~~said turning (3) and drilling (4) units~~ so that mechanical machining in the drilling and turning units takes place at the same time as the operations of loading and unloading workpieces onto and from the equipment.

2. (Currently Amended) The ~~[[E]] equipment~~ according to claim 1, comprising in the ~~said drilling unit (4)~~ at least one second drilling head ~~(22)~~ and at least one second workpiece-holding means ~~(20)~~, the ~~said first and second drilling heads (21, 22)~~ being incorporated into the drilling unit ~~(4)~~ in such a way as to carry out corresponding separate drilling operations in one working cycle on a workpiece supported on one of the ~~said workpiece-holding means (19, 20)~~

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while at the same time workpiece loading/unloading movements are being performed in relation to the other workpiece-holding means.

3. (Currently Amended) The ~~[[E]]~~equipment according to claim 2, in which the said drilling heads ~~(21, 22)~~ are equipped with corresponding tool magazines so that during stages in which machining is carried out by one of the heads the other head is at the same time being fitted with tools to carry out subsequent drilling operations.

4. (Currently Amended) The ~~[[E]]~~equipment according to ~~one or more of the preceding claims~~ claim 2, in which guide means are provided for the ~~said~~ at least one of the drilling heads ~~(21, 22)~~ along three corresponding controlled working axes.

5. (Currently Amended) The ~~[[E]]~~equipment according to ~~one or more of the preceding claims~~ claim 1, in which the ~~said~~ at least one turning head ~~(8)~~ comprises a corresponding tool-holding slide ~~(10)~~ guided so as to move away from and towards the said chucks ~~(6, 7)~~ for alternate machining at one or other of the chucks.

6. (Currently Amended) The ~~[[E]]~~equipment according to ~~one or more of the preceding claims~~ claim 1, in which the ~~said~~ first and second workpiece loading/unloading devices ~~(11, 23)~~ are guided along the ~~said~~ turning ~~(3)~~ and drilling ~~(4)~~ units between a magazine ~~(12)~~ from which workpieces are picked up for machining and an opposite station ~~(13)~~ for unloading workpieces machined in the equipment.

7. (Currently Amended) The ~~[[E]]~~equipment according to claim 6, in which the said workpiece loading/unloading devices ~~(11, 23)~~ are conducted along a guide ~~(15)~~ supported by vertical uprights ~~(14)~~ and lying above the turning ~~(3)~~ and drilling ~~(4)~~ units for moving the workpieces being machined from and towards the ~~said~~ drilling and turning units between the ~~said~~ magazine ~~(12)~~ from which the workpieces are picked up and the ~~said~~ station ~~(13)~~ at which the workpieces are unloaded from the equipment.

8. (New) Equipment for mechanical machining of workpieces, the equipment comprising:

at least one turning unit with at least a pair of chucks to support the workpieces being machined and respective turning heads designed to work in association with the corresponding chucks,

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at least one first workpiece loading/unloading device for moving the workpieces being machined to one or other of the chucks so that workpieces are loaded/unloaded from one of the chucks at the same time as mechanical machining is being performed on the other chuck,

at least one drilling unit operatively associated with the turning unit and including at least one first drilling head combined with at least one corresponding first workpiece-holding means,

at least one second workpiece loading/unloading device for moving workpieces being machined in the at least one drilling unit,

the first and second workpiece loading/unloading devices being further incorporated into the equipment to move the workpieces undergoing machining towards and away from one or the other of the turning and drilling units so that mechanical machining in the drilling and turning units takes place at the same time as the operations of loading and unloading workpieces onto and from the equipment.

9. (New) The equipment according to claim 3, in which guide means are provided for at least one of the drilling heads along three corresponding controlled working axes.

10. (New) The equipment according to claim 2, in which the at least one turning head comprises a corresponding tool-holding slide guided so as to move away from and towards the chucks for alternate machining at one or other of the chucks.

11. (New) The equipment according to claim 3, in which the at least one turning head comprises a corresponding tool-holding slide guided so as to move away from and towards the chucks for alternate machining at one or other of the chucks.

12. (New) The equipment according to claim 4, in which the at least one turning head comprises a corresponding tool-holding slide guided so as to move away from and towards the chucks for alternate machining at one or other of the chucks.

13. (New) The equipment according to claim 2, in which the first and second workpiece loading/unloading devices are guided along the turning and drilling units between a magazine from which workpieces are picked up for machining and an opposite station for unloading workpieces machined in the equipment.

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14. (New) The equipment according to claim 3, in which the first and second workpiece loading/unloading devices are guided along the turning and drilling units between a magazine from which workpieces are picked up for machining and an opposite station for unloading workpieces machined in the equipment.

15. (New) The equipment according to claim 4, in which the first and second workpiece loading/unloading devices are guided along the turning and drilling units between a magazine from which workpieces are picked up for machining and an opposite station for unloading workpieces machined in the equipment.

16. (New) The equipment according to claim 5, in which the first and second workpiece loading/unloading devices are guided along the turning and drilling units between a magazine from which workpieces are picked up for machining and an opposite station for unloading workpieces machined in the equipment.

17. (New) The equipment according to claim 1, wherein the workpieces are alloy wheels.

18. (New) The equipment according to claim 8, wherein the workpieces are alloy wheels.